The Internet & Television Association
25 Massachusetts Avenue, NW | Suite 100
Washington, DC 20001
(202) 222-2300

Danielle Piñeres
Vice President & Associate General Counsel

o (202) 222-2459 e dpineres@ncta.com

October 15, 2019

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: ***Auction of Priority Access Licenses for the 3550-3650 MHz Band,***
AU Docket No. 19-244

Dear Ms. Dortch:

On October 10, 2019, Rick Chessen and Danielle Piñeres of NCTA – The Internet & Television Association (NCTA)[1]; Colleen King of Charter Communications, Inc.; David Don of Comcast Corporation; Barry Ohlson of Cox Enterprises, Inc.; Peter Cramton of University of Maryland; and Renee Gregory of Willkie Farr & Gallagher LLP, counsel to NCTA and Comcast, met with Aaron Goldberger, Wireless and International Advisor to Chairman Pai; Erin McGrath, Legal Advisor, Wireless, Public Safety and International to Commissioner O'Rielly; Will Adams, Legal Advisor to Commissioner Carr; Umair Javed, Legal Advisor, Wireless and International to Commissioner Rosenworcel; and Bill Davenport, Chief of Staff and Senior Legal Advisor for Wireless and International to Commissioner Starks. The parties also met with Craig Bomberger, Jonathan Campbell, Pat DeGraba (by phone), Shabnam Javid, Mary Lovejoy, Gary Michaels, Kelly Quinn (by phone), and Martha Stancill of the Office of Economics and Analytics (OEA); and Jessica Quinley and Becky Schwartz (by phone) of the Wireless Telecommunications Bureau (WTB). Mr. Cramton separately had a phone conversation with Evan Kwerel of OEA.

In the meetings, we expressed our continued support for the Commission's decision to license Priority Access Licenses by counties and raised serious concerns about the unintended negative consequences of the proposal to permit Cellular Market Area (CMA) bidding in Auction 105, as described further in the attached presentation. First, CMA bidding would create strong incentives for county price steering, leading to chaotic and inefficient outcomes and poor

[1] Ms. Piñeres participated in the meetings with Mr. Goldberger and OEA and WTB staff. Mr. Chessen participated in the meetings with Ms. McGrath and Mr. Davenport. NCTA did not participate in the meetings with Mr. Javed and Mr. Adams.

price and demand discovery for county bidders. Second, many desired county licenses would remain unsold despite demand from county bidders. Third, CMA bidders' inability to accommodate county bidders could lead to a failure to maximize total value and disadvantage county bidders as compared to CMA bidders. We also noted that the proposed auction design could force CMA bidders to pay more for a package of licenses than their submitted bids.

We acknowledged that CMA bidding could limit exposure risk for large bidders, but also explained that this risk is likely to be minimal, while the harms of CMA bidding would be very significant. Furthermore, past spectrum auctions have demonstrated that bidders are able to successfully aggregate licenses within an auction without package bidding, and in this instance any exposure risk is lessoned by the existence of General Authorized Access (GAA) spectrum and the likely availability of hundreds of megahertz of additional mid-band spectrum in the C-Band in the relative near-term. For these reasons, the parties urged the Commission to adopt a county-based clock auction without CMA bidding. The adoption of this design will result in a simple and powerful auction that is well-understood, low-risk, and proven to be successful.

In response to questions during the meeting with OEA and WTB staff, we also explained that the proposal to use a variable price increment for counties subject to CMA bidding would magnify problems related to price steering by county bidders.

Please direct any questions regarding the foregoing to the undersigned.

Sincerely,

/s/ Danielle J. Piñeres

Danielle J. Piñeres

cc: Meeting attendees

Attachment

FTI CONSULTING™

CBRS Auction Proposed Rules

October 10, 2019

How we got here

October 2018 Report & Order adopted county-sized licenses as "an appropriate middle ground":

- "Counties are sufficiently small to support the small cell deployments and localized types of service we anticipate will be an important part of this band." ¶ 29.
- "[C]ounties are the basic 'building blocks' of many geographic areas, making them suitable for aggregation for licensees that wish to operate over larger areas. This flexibility makes counties an appropriate middle ground for this band . . . ." ¶ 29.
- "[I]ncreasing the PAL license area size further . . . could disproportionately favor mobile use cases and hinder investment in innovative fixed networks and localized deployments." ¶ 20.

October 2018 Report & Order teed up the possibility of package bidding to improve efficiency:

- "[T]o provide greater flexibility to PAL applicants interested in serving larger areas, we will seek comment in the pre-auction process on allowing package bids to facilitate bidding for the counties that comprise a complete MSA in the top 305 markets. . . . [This approach] could reduce secondary market transaction costs while still promoting an active secondary market." ¶ 40.

September 2019 Public Notice more specifically seeks comment on CMA-level bidding, as directed:

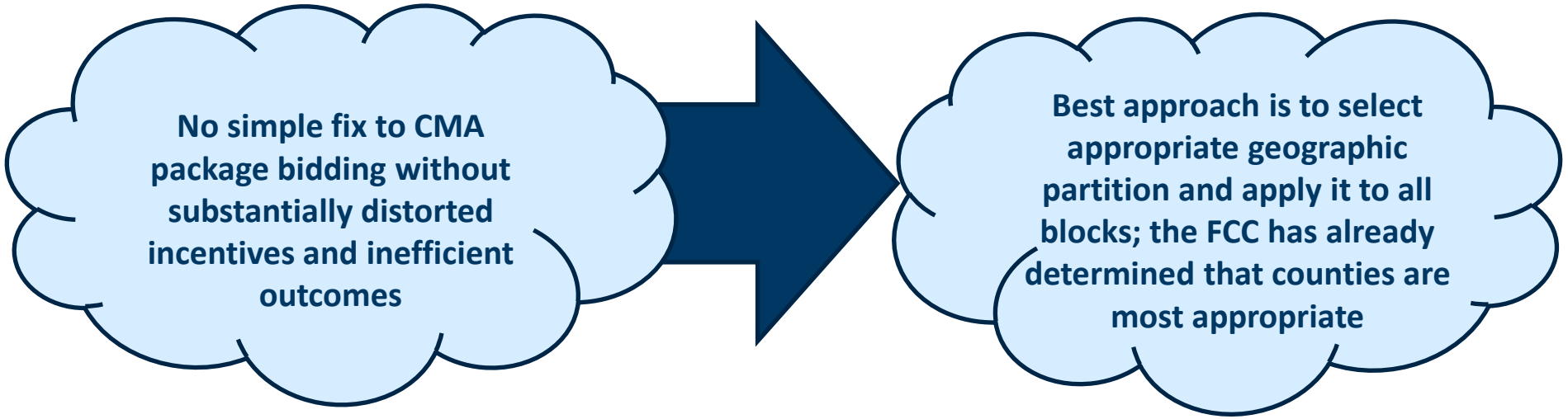
- "[W]e seek comment on proposed procedures that could give greater bidding flexibility to bidders interested in serving areas larger than a county. . . . [A] bidder could elect prior to the start of bidding to bid at a CMA-level for blocks in all of the counties comprising certain large CMAs." ¶ 29.

Summary of likely harms

CMA package bidding would likely result in unintended negative consequences:

1. *Inability to accommodate county bidders could lead to a failure to maximize total value*
   - Creates uneven, disadvantageous playing field for county bidders
   - May artificially increase concentration of spectrum in the hands of CMA bidders, despite demonstrated competing demand of county bidders at higher prices
2. *Strong incentives for county price steering would lead to chaotic and inefficient outcomes*
   - Each county bidder wants to displace CMA demand with high prices on counties in which bidder has no interest
   - Creates poor price discovery, inefficiency, and disadvantages less sophisticated bidders
3. *Many county licenses will remain unsold, despite demonstrated demand from county bidders*
   - CMA bidders may strategically create excess supply and foreclose competitors at no cost
   - CMA bidder backing out of CMA may result in unsold licenses despite county-level demand
4. *Bidders could be forced to pay more for a package of licenses than their submitted bids*

Ideal solution: Adhere to county-based auction



Benefits to maintaining county-based auction design:

- Results in simple and powerful clock auction that is well understood, low risk, with long history of success
- Allows bidders to successfully aggregate a synergistic package as bidders have done in prior FCC auctions
- Low exposure risk and undemonstrated synergies across all counties in a CMA do not justify significant risks of CMA bidding

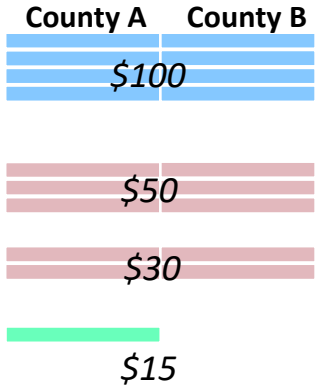
Example 1
Inability to accommodate county bidders

Bidder Values

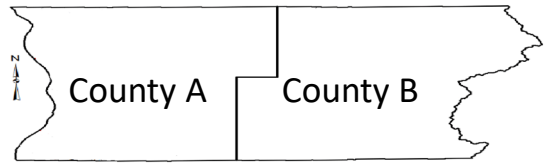
CMA Bidder X
$V_X(4;4) = \$100$

CMA Bidder Y
$V_Y(3;3) = \$50$
$V_Y(2;2) = \$30$

County Bidder Z
$V_Z(1;0) = \$15$

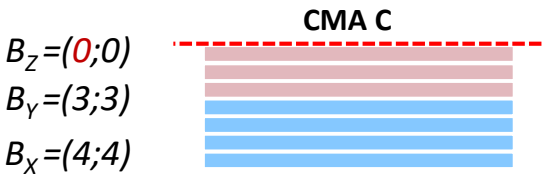


If Bidder Y is county-level bidder:
$V_Y(2;3) = \$40$



CMA C
Supply = 7

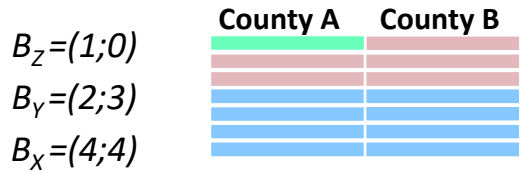
Y Bids at CMA Level



$V_X(4;4) + V_Y(3;3) = \$100 + \$50 = \mathbf{\$150}$

Fails to maximize total value and reduces competition

Y Bids at County Level



$V_X(4;4) + V_Y(2;3) + V_Z(1;0) = \$100 + \$40 + \$15 = \mathbf{\$155}$

Maximizes total value and increases competition

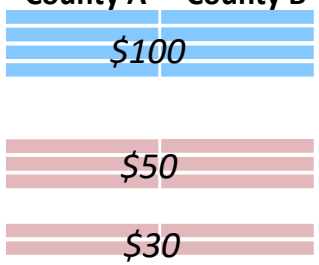
- CMA bidding is inefficient, fails to maximize total value, and artificially increases spectrum concentration
- Keeping bidding at county level resolves the concern
- Exposure risks in FCC auctions are familiar and readily manageable

Example 2
Price steering

Bidder Values

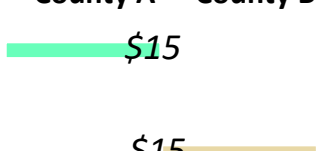
CMA Bidder X
$V_X(4;4) = \$100$

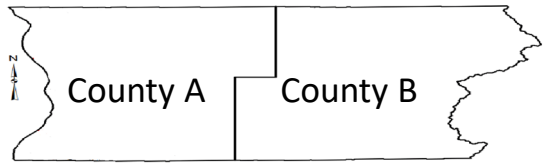
CMA Bidder Y
$V_Y(3;3) = \$50$
$V_Y(2;2) = \$30$



County Bidder Z
$V_Z(1;0) = \$15$

County Bidder Q
$V_Q(0;1) = \$15$

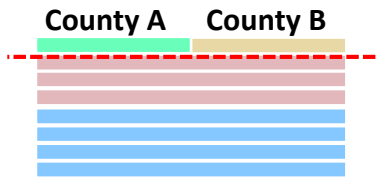




CMA C
Supply = 7

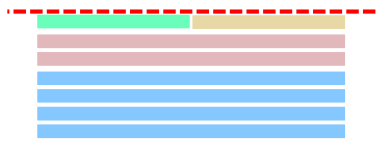
Straightforward Bidding

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(3;3)$
$B_X=(4;4)$



$@\ P_A = P_B = \$10$

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(2;2)$
$B_X=(4;4)$

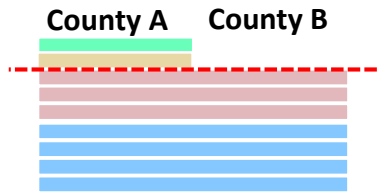


County A = $10; County B = $10

- CMA bidding creates strong incentive for county bidders to bid on what they don't want
- Chaotic and inefficient outcomes

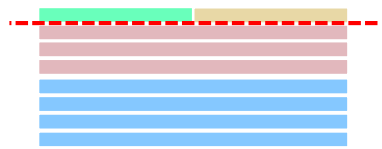
Price Steering by Bidder Q

$B_Z=(1;0)$
$B_Q=(1;0)$
$B_Y=(3;3)$
$B_X=(4;4)$



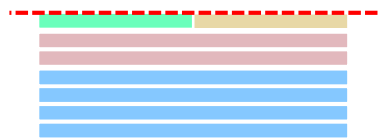
$@\ P_A = \$9; P_B = \$1$

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(3;3)$
$B_X=(4;4)$



$@\ P_A = \$14; P_B = \$6$

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(2;2)$
$B_X=(4;4)$



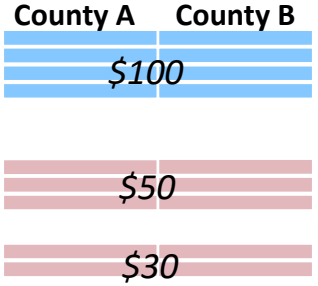
County A = $14; County B = $6

Example 3
Overpriced licenses and unsold spectrum

Bidder Values

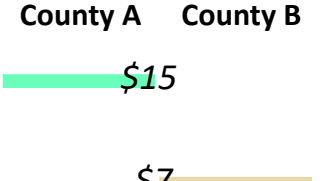
Bidder X
$V_X(4;4) = \$100$

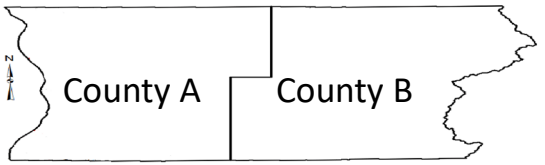
Bidder Y
$V_Y(3;3) = \$50$
$V_Y(2;2) = \$30$



Bidder Z
$V_Z(1;0) = \$15$

Bidder Q
$V_Q(0;1) = \$7$

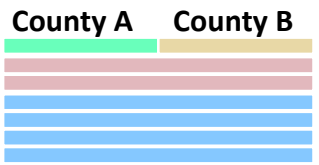




CMA C
Supply = 7

County Only Bidding

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(2;3)$
$B_X=(4;4)$

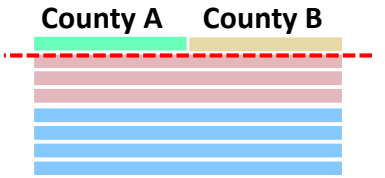


All 14 PALs sold at efficient prices

- CMA bidder may back out of CMA, creating unsold licenses despite county-level demand
- CMA bidder able to foreclose smaller competitors at no cost

County & CMA Bidding

$B_Z=(1;0)$
$B_Q=(0;1)$
$B_Y=(3;3)$
$B_X=(4;4)$

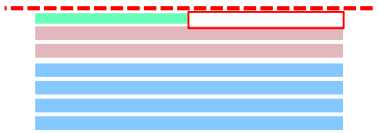


@ $P_A = P_B = \$8$

$B_Q=(0;0)$
$B_Z=(1;0)$
$B_Y=(3;3)$
$B_X=(4;4)$

@ $P_A = 13$; $P_B = \$8$

$B_Q=(0;0)$
$B_Z=(1;0)$
$B_Y=(2;2)$
$B_X=(4;4)$



Only 13 PALs sold despite demand for 14

Example 4
Payment higher than amount bid

Bidder Values

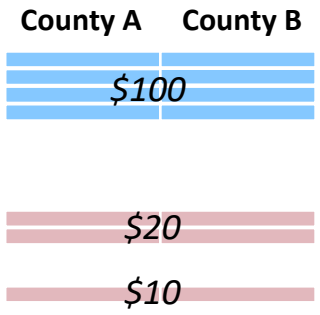
CMA Bidder X

$V_X(4;4) = \$100$

CMA Bidder Y

$V_Y(2;2) = \$20$

$V_Y(1;1) = \$10$

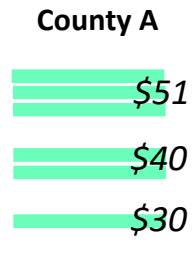


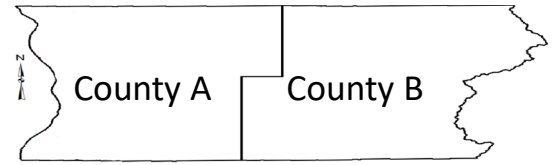
County Bidder Z

$V_Z(3;0) = \$51$

$V_Z(2;0) = \$40$

$V_Z(1;0) = \$30$

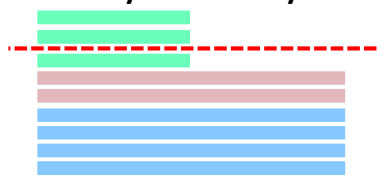




CMA C

Supply = 7

Bids	Processed Demand
$B_Z=(3;0)$	$D_Z=(3;0)$
$B_Y=(2;2)$	$D_Y=(2;2)$
$B_X=(4;4)$	$D_X=(4;4)$



Excess demand = 2 in County A

Excess supply = 1 in County B

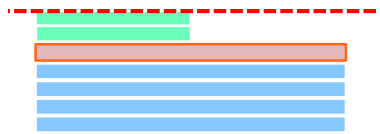
@ $P_A = \$10$

$B_Z=(3;0)$	$D_Z=(3;0)$
$B_Y=(0;0)$	$D_Y=(1;1)$
$B_X=(4;4)$	$D_X=(4;4)$

Excess supply in county B results in partial bid processing.

@ $P_A = \$11$

$B_Z=(2;0)$	$D_Z=(2;0)$
$B_Y=(0;0)$	$D_Y=(1;1)$
$B_X=(4;4)$	$D_X=(4;4)$



Bidder Z bid processed ahead of Bidder Y.

Bidder Y is stuck for 1 block at \$11.

$V_X(4;4) + V_Y(1;1) + V_Z(2;0) =$

$\$44 + \$11 + \$22 = \$77$

For simplicity, assume reserve price in County B is zero